



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,172	09/04/2001	Katsunori Yagi	Q65810	9843

7590

05/20/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

ELKASSABGI, HEBA

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/944,172

Applicant(s)

YAGI ET AL.

Examiner

Heba Elkassabgi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) 2 and 6-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the power supply in claim #1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yumiyama et al. (U.S. Patent 6028381) and further in view of Blanchet (U.S. Patent 5659211) and Yamada et al. (U.S. Patent 5010264).

Yumiyama et al. Discloses in Figure 1 a brush (3) slidably held on to the brush holder (13). However, Yumiyama et al. does not disclose the brush holders with springs attached to one side and radially inwardly facing.

Blanchet Illustrates in Figure 2 brushes (3) mounted within brush carriers (30) and are biased radially inwardly by springs (31) for the purpose of assembling the components all in the same sit which enables to be fitted quicker. However, Blanchet does not disclose a thermostat that is directly or indirectly attached to the brush holder.

Yamada et al. discloses in Figure 4 a thermistor (26) that is in directly connected to the brush holder (25) through a terminal holder (23) for the purpose of providing overheating protection. Furthermore, Yamada discloses in the prior art that the characteristic of the thermistor is that its resistance sharply increases a temperature exceeds a certain level.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Yumiyama et al. by placing a spring in a radially biased manner with the brush carrier in order to assemble the contents in a quickly and to in directly attach the themistor to the brush through a terminal to increase temperature resistance.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yumiyama et al. (U.S. Patent 6028381) and further in view of Blanchet (U.S. Patent 5659211) and Yamada et al. (U.S. Patent 5010264) as applied to Claim 1 and in further view of Tajima et al. (U.S. Patent 5294851).

I would have been obvious at the time of the invention was made to a person having ordinary skill in the art to modify the invention of Yumiyama et al., Blanchet, and Yamada et al. as applied to claim 1 by adding the invention of Tajima et al. Of the thermistor (8) with polyolefin resin mounted onto a substrate (13), for the purpose of having a protection to the thermistor from the motor.

8. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yumiyama et al. (U.S. Patent 6028381) and further in view of Blanchet (U.S. Patent 5659211) and Yamada et al. (U.S. Patent 5010264) as applied to claim 1 and Matsushima et al. (U.S. Patent 5600193).

Yumiyama et al., Blanchet, and Yamada et al. substantially teaches the claimed invention except that it does not show a flat sheet of high thermal conduction between the brush and thermostat. Matsushima et al. shows a conductive plate (65) between the brush (57) and thermistor (63) and a connecting plate body (base) (65) with an elastic force, for the purpose preventing the thermistor (63) from being damaged by stress.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Yumiyama et al., Blanchet, and Yamada et al. as applied to claim 4 by adding the invention of Matasushima et al. of the connecting plate body with an elastic force for the purpose of preventing the thermostat from being damaged by stress.

***Allowable Subject Matter***

9. Claims 2,5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

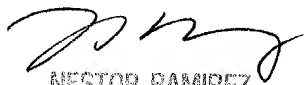
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Application/Control Number: 09/944,172  
Art Unit: 2834

Page 6

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HYE  
May 16, 2002

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800